WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Monday, November 14, 2005

Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L30	L28 and prostate	2
☐	L29	L28 and melanoma	2
☐	L28	20020039754	2
☐	L27	Fruehauf-john.in.	5
☐	L26	taylor-clive-r.in.	14
☐	L25	skinner-donald-g.in.	0
☐	L24	groshen-susan.in.	0
☐	L23	esrig-david.in.	0
☐	L22	bochner-bernard-h.in.	0
☐	L21	stein-john-p.in.	7
☐	L20	ginsberg-david-a.in.	0
☐	L19	grossfeld-gary-d.in.	0
☐	L18	cote-richard-j.in.	6
☐	L17	cote-r.in.	30
☐	L16	Bouck-noel-p.in.	15
☐	L15	L14 and l10	316
☐	L14	L13 and l11	330
☐	L13	p53	157705
☐	L12	Lp53	10
☐	L11	TSP-1	515
☐	L10	angiogenesis	26625
☐	L9	L8 and angiogenesis	318
☐	L8	L7 and l3	342
☐	L7	thrombospondin-1	659
☐	L6	bouck-n.in.	0
☐	L5	Dameron-k.in.	0
☐	L4	L2 and l3	57
☐	L3	p53	157705
☐	L2	brawer	208
☐	L1	brawer-mk.in.	0

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
10734880	0

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L6

Refine Search

Recall Text Clear Interrupt

Search History

DATE: Monday, November 14, 2005 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=ADJ			
L6	10734880	0	L6
L5	10295188	3	L5
L4	10144142	4	L4
L3	fruehauf-john.in.	5	L3
L2	5840507.pn.	2	L2
L1	6303324.pn.	2	L1

END OF SEARCH HISTORY

Freeform Search

Database: US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Term: L8 and angiogenesis

Display: 10 **Documents in Display Format:** - **Starting with Number** 1

Generate: ○ **Hit List** ◉ **Hit Count** ○ **Side by Side** ○ **Image**

Search | Clear | Interrupt

Search History

DATE: Monday, November 14, 2005 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=ADJ			
L9	L8 and angiogenesis	318	L9
L8	L7 and l3	342	L8
L7	thrombospondin-1	659	L7
L6	bouck-n.in.	0	L6
L5	Dameron-k.in.	0	L5
L4	L2 and l3	57	L4
L3	p53	157705	L3
L2	brawer	208	L2
L1	brawer-mk.in.	0	L1

END OF SEARCH HISTORY

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 NEWS  3  JUL 20   Powerful new interactive analysis and visualization software,
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                   of CAplus documents for use in third-party analysis and
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 NEWS EXPRESS  JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

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=> FIL MEDLINE, BIOSIS, EMBASE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY     SESSION
FULL ESTIMATED COST                                    0.21        0.21
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=> s p53
L1      114062 P53

=> s thrombospondin-1
L2        3207 THROMBOSPONDIN-1

=> s angiogenesis
L3       81008 ANGIOGENESIS

=> s l1 and l2
L4         244 L1 AND L2

=> s l3 and l4
L5         183 L3 AND L4

=> duplicate remove
ENTER L# LIST OR (END):l5
DUPLICATE PREFERENCE IS 'MEDLINE, BIOSIS, EMBASE'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L5
L6          106 DUPLICATE REMOVE L5 (77 DUPLICATES REMOVED)

=> s breast cancer
L7      291994 BREAST CANCER

=> l6 and l7
L6 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l6 and l7
L8          14 L6 AND L7

=> s prostate cancer
L9      103114 PROSTATE CANCER

=> s l6 and l9
L10          6 L6 AND L9

=> s melanoma
L11     170286 MELANOMA

=> s l6 and l11
L12          9 L6 AND L11

=> s l8 or l10
L13         18 L8 OR L10

=> s l13 or l12
L14         26 L13 OR L12

=> display l14
ENTER ANSWER NUMBER OR RANGE (1):1-26
ENTER DISPLAY FORMAT (FILEDEFAULT):all
```

L14 ANSWER 1 OF 26 MEDLINE on STN
AN 2002182450 MEDLINE
DN PubMed ID: 11916242
TI Aerosol delivery of PEI-**p53** complexes inhibits B16-F10 lung metastases through regulation of **angiogenesis**.
AU Gautam Ajay; Densmore Charles L; Melton Sara; Golunski Eva; Waldrep J Clifford
CS Department of Molecular Physiology and Biophysics, Baylor College of Medicine, Houston, Texas 77030, USA.
SO Cancer gene therapy, (2002 Jan) 9 (1) 28-36.
Journal code: 9432230. ISSN: 0929-1903.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200207
ED Entered STN: 20020403
Last Updated on STN: 20020710
Entered Medline: 20020709
AB Inhibition of pulmonary metastases poses a difficult clinical challenge for current therapeutic regimens. We have developed an aerosol system utilizing a cationic polymer, polyethyleneimine (PEI), for topical gene delivery to the lungs as a novel approach for treatment of lung cancer. Using a B16-F10 murine **melanoma** model in C57BL/6 mice, we previously demonstrated that aerosol delivery of PEI-**p53** DNA resulted in highly significant reductions in the tumor burden ($P < .001$) in treated animals, and also lead to about 50% increase in the mean length of survival of the mice-bearing B16-F10 lung tumors. The mechanisms of this antitumor effect of **p53** are investigated in this report. Here, we demonstrate that the **p53** transfection leads to an up-regulation of the antiangiogenic factor **thrombospondin**-1 (TSP-1) in the lung tissue and the serum of the mice. Furthermore, there is a down-regulation of vascular endothelial growth factor (VEGF) in the lung tissue and serum of the B16-F10 tumor-bearing mice treated with PEI-**p53** DNA complexes, compared with untreated tumor-bearing animals. In addition, staining for von Willebrand factor (vWF), a marker for the angiogenic blood vessels, revealed that **p53** treatment leads to a decrease in the angiogenic phenotype of the B16-F10 tumors. Immunohistochemistry for transgene expression reveals that the PEI-**p53** aerosol complexes transfect mainly the epithelial cells lining the airways, with diffuse transfection in the alveolar lining cells, as well as, the tumor foci in the lung tissue. There was also some evidence of apoptosis in the lung tumor foci of animals treated with **p53**. The data suggest that aerosol delivery of PEI-**p53** complexes leads to inhibition of B16-F10 lung metastases, in part by suppression of **angiogenesis**.
CT Check Tags: Female
Administration, Inhalation
Animals
Chloramphenicol O-Acetyltransferase: ME, metabolism
DNA: AD, administration & dosage
*Drug Delivery Systems
Endothelial Growth Factors: ME, metabolism
*Gene Therapy: MT, methods
***Genes, p53: GE, genetics**
Genetic Vectors
Humans
Lung Neoplasms: BS, blood supply
*Lung Neoplasms: PC, prevention & control
Lung Neoplasms: SC, secondary
Lymphokines: ME, metabolism
Melanoma, Experimental: BS, blood supply
Melanoma, Experimental: PA, pathology
***Melanoma, Experimental: PC, prevention & control**

Mice
Mice, Inbred C57BL
*Neovascularization, Pathologic: ME, metabolism
Polyethyleneimine: AD, administration & dosage
Thrombospondin 1: ME, metabolism
Transfection
Up-Regulation: PH, physiology
Vascular Endothelial Growth Factor A
Vascular Endothelial Growth Factors
RN 9002-98-6 (Polyethyleneimine); 9007-49-2 (DNA)
CN 0 (Endothelial Growth Factors); 0 (Genetic Vectors); 0 (Lymphokines); 0 (**Thrombospondin** 1); 0 (Vascular Endothelial Growth Factor A); 0 (Vascular Endothelial Growth Factors); EC 2.3.1.28 (Chloramphenicol O-Acetyltransferase)

L14 ANSWER 2 OF 26 MEDLINE on STN
AN 2002121277 MEDLINE
DN PubMed ID: 11856116
TI **Thrombospondin-1**, vascular endothelial growth factor expression and their relationship with **p53** status in **prostate cancer** and benign prostatic hyperplasia.
AU Kwak C; Jin R J; Lee C; Park M S; Lee S E
CS Department of Urology and Clinical Research Institute, Seoul National University College of Medicine, Seoul, Korea.
SO BJU international, (2002 Feb) 89 (3) 303-9.
Journal code: 100886721. ISSN: 1464-4096.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200203
ED Entered STN: 20020222
Last Updated on STN: 20020324
Entered Medline: 20020322
AB OBJECTIVE: To evaluate the expression of **thrombospondin-1** (TSP-1, a potent inhibitor of **angiogenesis**) and vascular endothelial growth factor (VEGF, an important angiogenic factor in solid tumours) in **prostate cancer**, and their relationship with **p53** status. PATIENTS AND METHODS: Using immunohistochemistry, the expression of VEGF, TSP-1 and **p53** was assessed in 82 archival tissue specimens from 23 patients with benign prostatic hyperplasia (BPH), 22 with localized **prostate cancer** and 37 with metastatic **prostate cancer**. Seven of the last group had received androgen deprivation therapy. The relationship between the expression of VEGF, TSP-1 and **p53** status was also evaluated with tumour grade and stage in patients with **prostate cancer**. RESULTS: The seven patients receiving hormonal treatment were excluded from the analysis because androgen deprivation significantly increased TSP-1 and decreased VEGF expression (both $P < 0.01$). Immunohistochemical analysis showed significantly higher VEGF and significantly lower TSP-1 expression (both $P < 0.01$) in **prostate cancer** than in BPH tissues. There was also significantly higher VEGF and significantly lower TSP-1 expression (both $P < 0.05$) in tissues from metastatic than localized **prostate cancer**. There was no significant correlation between VEGF or TSP-1 expression and Gleason score, but a significant inverse correlation between TSP-1 and VEGF expression. There was a significant association between VEGF expression and **p53** status ($P < 0.05$), but TSP-1 expression was not associated with **p53** status. CONCLUSIONS: Angiogenic factors, including VEGF and TSP-1, might be important in the development and progression of **prostate cancer**. These changes seem to be influenced by **p53** status. Identifying the angiogenic factors involved in **prostate cancer** might lead to the development of diagnostic or therapeutic strategies based on

anti-**angiogenesis**.
CT Check Tags: Male
Adenocarcinoma: BS, blood supply
*Adenocarcinoma: ME, metabolism
Aged
Aged, 80 and over
Disease Progression
*Endothelial Growth Factors: ME, metabolism
Humans
Immunohistochemistry
*Lymphokines: ME, metabolism
Middle Aged
Neovascularization, Pathologic
*Prostatic Hyperplasia: ME, metabolism
Prostatic Neoplasms: BS, blood supply
*Prostatic Neoplasms: ME, metabolism
***Protein p53: ME, metabolism**
Research Support, Non-U.S. Gov't
***Thrombospondin 1: ME, metabolism**
Vascular Endothelial Growth Factor A
Vascular Endothelial Growth Factors
CN 0 (Endothelial Growth Factors); 0 (Lymphokines); 0 (Protein **p53**); 0 (**Thrombospondin 1**); 0 (Vascular Endothelial Growth Factor A); 0 (Vascular Endothelial Growth Factors)

L14 ANSWER 3 OF 26 MEDLINE on STN
AN 2002071060 MEDLINE
DN PubMed ID: 11796289
TI **Thrombospondin-1** expression in patients with pathologic stage T3 **prostate cancer** undergoing radical prostatectomy: association with **p53** alterations, tumor **angiogenesis**, and tumor progression.
AU Grossfeld Gary D; Carroll Peter R; Lindeman Neil; Meng Maxwell; Groshen Susan; Feng An Chen; Hawes Debra; Cote Richard J
CS Department ofUrology, University of California, San Francisco, School of Medicine, San Francisco, California 94115-1711, USA.
SO Urology, (2002 Jan) 59 (1) 97-102.
Journal code: 0366151. ISSN: 1527-9995.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200202
ED Entered STN: 20020125
Last Updated on STN: 20020213
Entered Medline: 20020212
AB OBJECTIVES: To investigate **thrombospondin-1** (TSP) expression in patients with **prostate cancer** undergoing radical prostatectomy. TSP is a **p53**-dependent inhibitor of tumor **angiogenesis**. Previous studies have demonstrated that TSP expression is significantly associated with the microvessel density (MVD) count, **p53** expression, and disease-specific and overall survival in patients with invasive bladder cancer undergoing radical cystectomy. METHODS: Radical prostatectomy specimens from 85 patients with pathologic Stage T3 disease were analyzed for TSP expression, **p53** nuclear reactivity, and MVD using antigen-retrieval immunohistochemistry. The median follow-up after surgery was 10.6 years (range 1.8 to 15.4). Disease recurrence was defined as a prostate-specific antigen level of 0.2 ng/mL or greater on two consecutive occasions after surgery. TSP expression was graded as present or absent on the basis of the immunoreactivity in the extracellular matrix by persons unaware of the clinical outcome. Specimens were considered **p53** positive (altered) if more than 10% of the tumor cells demonstrated nuclear reactivity. The chi-square test was used to determine whether the

associations were significant between the pathologic tumor characteristics and the immunohistochemical findings. The log-rank test was used to determine the associations between the immunohistochemical findings and disease recurrence.RESULTS: TSP and **p53** were graded as positive in 21 (26%) and 16 (19%) tumors, respectively. The median MVD count was 111.5. No significant associations were found among **p53** status, TSP expression, and MVD. Seminal vesicle invasion and Gleason pattern 4 or 5 disease were significant predictors of disease recurrence. A trend was noted toward a higher rate of disease recurrence for patients with altered **p53** expression (**p53** positive) or increased MVD. TSP expression was not associated with disease recurrence.CONCLUSIONS: We found no significant association between TSP expression and **p53** status, MVD count, or outcome after radical prostatectomy for patients with pathologic Stage T3 **prostate cancer**. Our data suggest that **p53** and MVD may be associated with outcome in these patients. Additional studies are needed to identify reliable molecular markers of outcome for patients with this disease.

CT Check Tags: Male
*Adenocarcinoma: CH, chemistry
Adenocarcinoma: PA, pathology
Adenocarcinoma: SU, surgery
Follow-Up Studies
Humans
Middle Aged
Neoplasm Recurrence, Local: BL, blood
Neoplasm Recurrence, Local: DI, diagnosis
Neoplasm Staging
Prostate-Specific Antigen: BL, blood
Prostatectomy
*Prostatic Neoplasms: CH, chemistry
Prostatic Neoplasms: PA, pathology
Prostatic Neoplasms: SU, surgery
***Protein p53: AN, analysis**
***Thrombospondin 1: AN, analysis**
*Tumor Markers, Biological: AN, analysis

CN 0 (Protein **p53**); 0 (**Thrombospondin 1**); 0 (Tumor Markers, Biological); EC 3.4.21.77 (Prostate-Specific Antigen)

L14 ANSWER 4 OF 26 MEDLINE on STN
AN 2001155324 MEDLINE
DN PubMed ID: 11205922
TI Independent association of **angiogenesis** index with outcome in **prostate cancer**.
AU Mehta R; Kyshtoobayeva A; Kurosaki T; Small E J; Kim H; Stroup R; McLaren C E; Li K T; Fruehauf J P
CS Oncotech Incorporated, Irvine, California 92614, USA.
SO Clinical cancer research : an official journal of the American Association for Cancer Research, (2001 Jan) 7 (1) 81-8.
Journal code: 9502500. ISSN: 1078-0432.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200103
ED Entered STN: 20010404
Last Updated on STN: 20010404
Entered Medline: 20010322
AB New molecular factors have been characterized that are associated with the prognosis of prostate carcinoma patients, including **p53** status and **angiogenesis**. We reported recently that mutant **p53** (mp53) was associated with decreased expression of an endogenous inhibitor of **angiogenesis**, **thrombospondin**-1 (TSP-1), and increased microvessel density in **melanoma** and **breast**

cancer. In this study, we performed a similar analysis on primary prostate carcinoma to determine whether these factors were associated with each other or patient outcomes. Paraffin-embedded specimens of 98 cases of primary prostate carcinoma were obtained and examined to confirm tissue diagnosis and Gleason scores. Carcinoma-specific levels of **p53**, TSP-1, and tumor **angiogenesis** were determined using semiquantitative immunohistochemistry (IHC) methods. Acquisition of mp53 was significantly associated with decreased TSP-1 (P = 0.002) and increased **angiogenesis** (P < 0.0001). An **angiogenesis** index integrating mp53, TSP-1, and **angiogenesis** (CD31) scores was found to be an independent predictor of survival in univariate and multivariate analyses that included Gleason score, clinical stage, and patient age. Further validation of the **angiogenesis** index in prostate carcinoma may provide a new tool to stratify patient risk.

CT Check Tags: Male
*Adenocarcinoma: BS, blood supply
Adenocarcinoma: ME, metabolism
Adenocarcinoma: SU, surgery
Aged
Antigens, CD31: ME, metabolism
Biopsy, Needle
Disease Progression
Humans
Image Processing, Computer-Assisted
Immunoenzyme Techniques
Mutation
Neovascularization, Pathologic: ME, metabolism
*Neovascularization, Pathologic: PA, pathology
Neovascularization, Pathologic: SU, surgery
Paraffin Embedding
Prostatectomy
*Prostatic Neoplasms: BS, blood supply
Prostatic Neoplasms: ME, metabolism
Prostatic Neoplasms: SU, surgery
Protein p53: ME, metabolism
Retrospective Studies
Survival Analysis
Thrombospondin 1: ME, metabolism
Tumor Markers, Biological: ME, metabolism

CN 0 (Antigens, CD31); 0 (Protein **p53**); 0 (**Thrombospondin 1**); 0 (Tumor Markers, Biological)

L14 ANSWER 5 OF 26 MEDLINE on STN
AN 2001118033 MEDLINE
DN PubMed ID: 11150912
TI **Thrombospondin-1** and -2 in node-negative **breast cancer**: correlation with angiogenic factors, **p53**, cathepsin D, hormone receptors and prognosis.
AU Gasparini G; Toi M; Biganzoli E; Dittadi R; Fanelli M; Morabito A; Boracchi P; Gion M
CS Division of Medical Oncology, Azienda Complesso Ospedaliero 'San Filippo Neri', Rome, Italy.
SO Oncology, (2001) 60 (1) 72-80.
Journal code: 0135054. ISSN: 0030-2414.
CY Switzerland
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200102
ED Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010215
AB OBJECTIVE: Thrombospondins (TSP(s)) are a multigene family of five secreted glycoproteins involved in the regulation of cell proliferation,

adhesion and migration. Two members of the TSP family, namely TSP-1 and TSP-2, are also naturally occurring inhibitors of **angiogenesis**. The aim of the present study was to determine the prognostic significance of the determination of TSP-1 and -2 and their correlation with the angiogenic peptides vascular endothelial growth factor (VEGF) and thymidine phosphorylase (TP), as well as with other biological and clinicopathological features investigated. METHODS: We evaluated a series of 168 women with node-negative **breast cancer** with a median follow-up period of 66 months, not treated with adjuvant therapy. The cytosolic levels of TSP-1 and -2 were determined in the primary tumour by a commercially available immunometric assay. RESULTS: We found that 166 tested tumours had measurable levels of TSP-1 and -2 protein (median value 5.978, range 0.579-31.410 ng/mg of protein). On the basis of Spearman's rank correlation coefficient, a weak inverse association of TSP-1 and -2 with tumour size and cathepsin D was found. Moreover, principal component analysis on ranks evidenced a poor association between TSP-1 and -2, VEGF and TP. The results of the clinical outcome were analysed by both univariate and multivariate [for relapse-free survival (RFS) only]) Cox regression models. TSP-1 and -2 were not significant prognostic factors in univariate analysis for either RFS ($p = 0.427$) or overall survival ($p = 0.069$). To investigate the 'angiogenic balance hypothesis', bivariate analyses were performed to investigate the interactions of TSP-1 and -2 with VEGF, TP or **p53**, but none were included in the selected models. Finally, in multivariate analysis for RFS a baseline model, previously defined in a larger case series and inclusive of VEGF, TP and their interaction was adopted. It was highly significant ($p = 0.002$, Harrell c statistic value of 0.703); but when TSP-1 and -2 were added, their contribution was negligible ($p = 0.731$, Harrell c statistic value of 0.705). CONCLUSIONS: The results of this study suggest that TSP-1 and -2 do not provide additional prognostic contribution to the joint effects of VEGF and TP. In the series of node-negative **breast cancer** patients investigated, determination of the angiogenic peptides VEGF and TP gave significant prognostic information. On the contrary, TSP-1 and -2, potential naturally occurring negative regulators of **angiogenesis**, lacked prognostic value.

CT Check Tags: Female
*Breast Neoplasms: CH, chemistry
Breast Neoplasms: PA, pathology
*Cathepsin D: AN, analysis
Cytosol: CH, chemistry
*Endothelial Growth Factors: AN, analysis
Humans
Immunohistochemistry
*Lymphokines: AN, analysis
Neovascularization, Pathologic: ME, metabolism
Predictive Value of Tests
Prognosis
Proportional Hazards Models
***Protein p53: AN, analysis**
*Receptors, Estrogen: AN, analysis
*Receptors, Progesterone: AN, analysis
Research Support, Non-U.S. Gov't
Thrombospondin 1: AN, analysis
*Thrombospondins: AN, analysis
Thymidine Phosphorylase: AN, analysis
*Tumor Markers, Biological: AN, analysis
Vascular Endothelial Growth Factor A
Vascular Endothelial Growth Factors

CN 0 (Endothelial Growth Factors); 0 (Lymphokines); 0 (Protein **p53**); 0 (Receptors, Estrogen); 0 (Receptors, Progesterone); 0 (**Thrombospondin 1**); 0 (Thrombospondins); 0 (Tumor Markers, Biological); 0 (Vascular Endothelial Growth Factor A); 0 (Vascular Endothelial Growth Factors); EC 2.4.2.4 (Thymidine

Phosphorylase); EC 3.4.23.5 (Cathepsin D)

L14 ANSWER 6 OF 26 MEDLINE on STN
AN 2000182650 MEDLINE
DN PubMed ID: 10719731
TI **p53** and vascular-endothelial-growth-factor (VEGF) expression predicts outcome in 833 patients with primary breast carcinoma.
AU Linderholm B; Lindh B; Tavelin B; Grankvist K; Henriksson R
CS Department of Oncology, Umea University, Sweden.. Barbro.Linderholm@onkologi.umu.se
SO International journal of cancer. Journal international du cancer, (2000 Jan 20) 89 (1) 51-62.
Journal code: 0042124. ISSN: 0020-7136.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200003
ED Entered STN: 20000330
Last Updated on STN: 20000330
Entered Medline: 20000321
AB The angiogenic factor vascular endothelial growth factor (VEGF) predicts outcome in primary breast carcinoma. Alteration of the **p53** gene causes down-regulation of the expression of **thrombospondin-1**, a natural inhibitor of **angiogenesis**. This study was conducted to investigate the association between mutant **p53** protein and VEGF expression, and the prognostic value of these factors. VEGF165 and **p53** protein were measured in tumour cytosols by enzyme immunoassays. Recurrence-free survival (RFS) and overall survival (OS) were estimated in 833 consecutive patients, 485 node-negative (NNBC) and 348 node-positive (NPBC) with primary invasive **breast cancer**. A significant association was found between mutant **p53** protein and VEGF expression. Univariate analysis showed both **p53** and VEGF to be significant predictors of survival. Similar correlation was seen when **p53** was combined with VEGF. Univariate analysis of NNBC showed significant prognostic value of **p53** for OS, also when combined with VEGF expression; for NPBC, significant reductions in RFS and OS were seen for **p53**-positive patients, and these findings were enhanced when combined with VEGF, also in the sub-group receiving adjuvant endocrine treatment. Multivariate analysis showed both **p53** and VEGF as independent predictors of OS in all groups. When the 2 factors were combined, an increased relative risk of 2.7 was seen for OS in the group with both **p53** positivity and high VEGF content, as compared with 1.7 in the group with one risk factor. The results suggest an association between loss of wt-**p53** and increased VEGF expression, indicating that angiogenic activity may depend, at least partly, on altered **p53**-protein function. Combination of these 2 biological markers appears to give additional predictive information of survival. A high-risk group of patients was associated with **p53** positivity and higher VEGF content.
CT Check Tags: Female
Breast Neoplasms: BS, blood supply
*Breast Neoplasms: ME, metabolism
Breast Neoplasms: MO, mortality
Breast Neoplasms: PA, pathology
*Endothelial Growth Factors: ME, metabolism
Humans
*Lymphokines: ME, metabolism
Multivariate Analysis
Neovascularization, Pathologic
Prognosis
Proportional Hazards Models
***Protein p53: ME, metabolism**

Receptors, Estrogen: ME, metabolism
Receptors, Progesterone: ME, metabolism
Research Support, Non-U.S. Gov't
Survival Analysis
Vascular Endothelial Growth Factor A
Vascular Endothelial Growth Factors

CN 0 (Endothelial Growth Factors); 0 (Lymphokines); 0 (Protein **p53**); 0 (Receptors, Estrogen); 0 (Receptors, Progesterone); 0 (Vascular Endothelial Growth Factor A); 0 (Vascular Endothelial Growth Factors); 0 (vascular endothelial growth factor A, human)

L14 ANSWER 7 OF 26 MEDLINE on STN
AN 1999240722 MEDLINE
DN PubMed ID: 10224095
TI Systemic gene delivery expands the repertoire of effective antiangiogenic agents.
AU Liu Y; Thor A; Shtivelman E; Cao Y; Tu G; Heath T D; Debs R J
CS Geraldine Brush Cancer Research Institute at the California Pacific Medical Center, San Francisco, California 94115, USA.
NC CA58207 (NCI)
CA58914 (NCI)
CA71422 (NCI)
SO Journal of biological chemistry, (1999 May 7) 274 (19) 13338-44.
Journal code: 2985121R. ISSN: 0021-9258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199906
ED Entered STN: 19990614
Last Updated on STN: 19990614
Entered Medline: 19990603
AB Cationic liposome-DNA complex (CLDC)-based intravenous gene delivery targets gene expression to vascular endothelial cells, macrophages and tumor cells. We used systemic gene delivery to identify anti-angiogenic gene products effective against metastatic spread in tumor-bearing mice. Specifically, CLDC-based intravenous delivery of the **p53** and GM-CSF genes were each as effective as the potent antiangiogenic gene, angiostatin, in reducing both tumor metastasis and tumor **angiogenesis**. Combined delivery of these genes did not increase anti-tumor activity, further suggesting that each gene appeared to produce its antimetastatic activity through a common antiangiogenic pathway. CLDC-based intravenous delivery of the human wild type **p53** gene transfected up to 80% of tumor cells metastatic to lung. Furthermore, it specifically induced the expression of the potent antiangiogenic gene, **thrombospondin-1**, indicating that **p53** gene delivery in vivo may inhibit **angiogenesis** by inducing endogenous **thrombospondin-1** expression. CLDC-based delivery also identified a novel anti-tumor activity for the metastasis suppressor gene CC3. Thus, CLDC-based intravenous gene delivery can produce systemic antiangiogenic gene therapy using a variety of different genes and may be used to assess potential synergy of combined anti-tumor gene delivery and to identify novel activities for existing anti-tumor genes.
CT Angiostatins
Animals
Gene Expression
*Gene Transfer Techniques
Genes, p53: GE, genetics
Granulocyte-Macrophage Colony-Stimulating Factor: GE, genetics
Humans
***Melanoma, Experimental: BS, blood supply**
Melanoma, Experimental: GE, genetics
Melanoma, Experimental: PA, pathology
Mice

*Neoplasm Metastasis: TH, therapy
Neovascularization, Pathologic: GE, genetics
*Neovascularization, Pathologic: TH, therapy
Peptide Fragments: GE, genetics
Plasminogen: GE, genetics
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
Thrombospondin 1: GE, genetics
RN 83869-56-1 (Granulocyte-Macrophage Colony-Stimulating Factor); 86090-08-6 (Angiostatins); 9001-91-6 (Plasminogen)
CN 0 (Peptide Fragments); 0 (**Thrombospondin 1**)

L14 ANSWER 8 OF 26 MEDLINE on STN
AN 1998278601 MEDLINE
DN PubMed ID: 9618039
TI Mutant **p53** correlates with reduced expression of **thrombospondin-1**, increased **angiogenesis**, and metastatic progression in **melanoma**.
AU Grant S W; Kyshtoobayeva A S; Kurosaki T; Jakowatz J; Fruehauf J P
CS Department of Surgery, University of California, Irvine College of Medicine, USA.
SO Cancer detection and prevention, (1998) 22 (3) 185-94.
Journal code: 7704778. ISSN: 0361-090X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199902
ED Entered STN: 19990316
Last Updated on STN: 19990316
Entered Medline: 19990226
AB On the basis of reports linking mutant **p53** (mp53) to decreased expression of the **angiogenesis** inhibitor **thrombospondin -1** (TSP-1) and increased **angiogenesis**, we compared primary and metastatic **melanoma** tumor specimens to determine if these factors were associated with metastatic progression. Western blotting, immunohistochemistry (IHC), and image analysis (IA) techniques were employed to evaluate the relationship between **p53** status and TSP-1 expression in Zaz and M14 **melanoma** cell lines, and among **p53**, TSP-1, and **angiogenesis** in primary and metastatic **melanomas**. Zaz cells expressed wild-type **p53** (WT **p53**) and high levels of TSP-1, while the M14 cells expressed mp53 and low TSP-1 levels. Examination of clinical **melanoma** specimens (N = 99) revealed an incidence of mp53 of 48%. Specimens with WT **p53** (N = 46) expressed significantly higher mean levels of TSP-1 (41 +/- 27 vs. 21 +/- 24; p = 0.0004), and lower microvessel counts per 200x field (25 +/- 17 vs. 40 +/- 20; p = 0.0001) than tumors expressing mp53 (N = 42). A significantly higher incidence of mp53 expression was seen in metastatic tumors (64%, 37/58) than in primary tumors (27%, 11/41)(p < 0.0005). Primary tumors specimens had higher levels of TSP-1 (40 +/- 27 vs. 25 +/- 25; p = 0.0054) and lower microvessel counts (26 +/- 18 vs. 39 +/- 20, p = 0.0013) than metastatic tumors. These data suggest that acquisition of mp53, decreased TSP-1, and increased microvessel infiltration may be interrelated and associated with the metastatic phenotype in malignant **melanoma**.
CT Blotting, Western
***Genes, p53: GE, genetics**
Humans
Immunohistochemistry
Melanoma: BS, blood supply
***Melanoma: GE, genetics**
***Melanoma: SC, secondary**
*Mutation: GE, genetics
*Neovascularization, Pathologic: GE, genetics

Thrombospondins: AI, antagonists & inhibitors
*Thrombospondins: BI, biosynthesis
Tumor Cells, Cultured
CN 0 (Thrombospondins)

L14 ANSWER 9 OF 26 MEDLINE on STN
AN 96049797 MEDLINE
DN PubMed ID: 8534861
TI The modulation of thrombospondin and other naturally occurring inhibitors of **angiogenesis** during tumor progression.
AU Volpert O V; Stellmach V; Bouck N
CS Department of Microbiology-Immunology, Northwestern University, Chicago, IL 60611, USA.
NC RO1 CA27350 (NCI)
SO Breast cancer research and treatment, (1995) 36 (2) 119-26. Ref: 56
Journal code: 8111104. ISSN: 0167-6806.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199602
ED Entered STN: 19960221
Last Updated on STN: 19980206
Entered Medline: 19960207
AB Fifteen different natural inhibitors of **angiogenesis** have now been identified that are produced by mammalian cells and are able to block in vivo neovascularization. The majority of these are able to inhibit endothelial cell activities in vitro and all those tested have demonstrated significant antitumor activity. Most normal cells produce inhibitors of neovascularization that must be downregulated before the cells can develop into angiogenic, malignant tumors. In several cases the production of inhibitors ceases when tumor suppressor genes are inactivated. In the BT549 human breast carcinoma cell line, the reintroduction of a wild type **p53** tumor suppressor gene resulted in the stimulation of the secretion of an inhibitor of **angiogenesis**, **thrombospondin-1**, and as a result the cells lost their angiogenic phenotype and became able to suppress **angiogenesis** induced by the parental tumor line. These results provide a new example of tumor suppressor gene control of a natural inhibitor of **angiogenesis** and add support to the concept that thrombospondin loss may play an important role in the development of some human **breast cancers**.
CT Animals
*Breast Neoplasms: BS, blood supply
*Breast Neoplasms: ME, metabolism
Cell Adhesion Molecules: BI, biosynthesis
Cell Adhesion Molecules: ME, metabolism
Disease Progression
Down-Regulation
Humans
*Membrane Glycoproteins: BI, biosynthesis
Membrane Glycoproteins: PH, physiology
*Neovascularization, Pathologic: ME, metabolism
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
Thrombospondins
CN 0 (Cell Adhesion Molecules); 0 (Membrane Glycoproteins); 0 (Thrombospondins)

L14 ANSWER 10 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2001:85345 BIOSIS

DN PREV200100085345
TI **Angiogenesis** index (AI) is associated with early recurrence in patients presenting with primary **breast cancer**.
AU Ellis, R. J. [Reprint author]; Kimler, B. F. [Reprint author]; Fabian, C. J. [Reprint author]; Tawfik, O. [Reprint author]; Mehta, R. S.; Kysthoobayeva, A.; Fruehauf, J. P.
CS University of Kansas Medical Center, Kansas City, KS, USA
SO Breast Cancer Research and Treatment, (November, 2000) Vol. 64, No. 1, pp. 101. print.
Meeting Info.: 23rd Annual San Antonio Breast Cancer Symposium. San antonio, Texas, USA. December 06-09, 2000. Cancer Therapy and Research Center Research Foundation.
CODEN: BCTRD6. ISSN: 0167-6806.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LA English
ED Entered STN: 14 Feb 2001
Last Updated on STN: 12 Feb 2002
CC Immunology - General and methods 34502
General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Sterols and steroids 10067
Cardiovascular system - Physiology and biochemistry 14504
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Reproductive system - Physiology and biochemistry 16504
Reproductive system - Pathology 16506
Endocrine - General 17002
Neoplasms - Immunology 24003
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Immunology - Immunopathology, tissue immunology 34508
IT Major Concepts
Gynecology (Human Medicine, Medical Sciences); Oncology (Human Medicine, Medical Sciences); Methods and Techniques
IT Parts, Structures, & Systems of Organisms
blood vessel: circulatory system; breast: reproductive system, histology; lymph node: blood and lymphatics, immune system, histology
IT Diseases
primary **breast cancer**: neoplastic disease, reproductive system disease/female, early recurrence, grade, invasiveness
Breast Neoplasms (MeSH)
IT Chemicals & Biochemicals
CD31: biomarker, expression; estrogen; estrogen receptor: expression; **p53**: biomarker, expression; progesterone; progesterone receptor: expression; **thrombospondin-1** [TSP-1]: biomarker, expression
IT Methods & Equipment
angiogenesis index: scoring method
IT Miscellaneous Descriptors
age; **angiogenesis**; blood vessel density; estrogen receptor status; invasive phenotype; lymph node status; progesterone receptor status; survival rate; tumor grade; tumor size; Meeting Abstract; Meeting Poster
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: female, patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
RN 57-83-0 (progesterone)

L14 ANSWER 11 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2000:238815 BIOSIS
DN PREV200000238815
TI Importance of vascular endothelial growth factor (VEGF) and **thrombospondin-1** (TSP-1) in **melanoma** **angiogenesis**, and independent prognostic significance of microvessel density.
AU Straume, Oddbjorn [Reprint author]; Akslen, Lars A. [Reprint author]
CS Gade Institute, Bergen, Norway
SO Proceedings of the American Association for Cancer Research Annual Meeting, (March, 2000) No. 41, pp. 511. print.
Meeting Info.: 91st Annual Meeting of the American Association for Cancer Research. San Francisco, California, USA. April 01-05, 2000.
ISSN: 0197-016X.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 7 Jun 2000
Last Updated on STN: 5 Jan 2002
CC Neoplasms - General 24002
Biochemistry studies - General 10060
Cardiovascular system - General and methods 14501
General biology - Symposia, transactions and proceedings 00520
IT Major Concepts
Cardiovascular System (Transport and Circulation); Tumor Biology
IT Parts, Structures, & Systems of Organisms
microvessels: circulatory system, density
IT Diseases
melanoma: neoplastic disease
Melanoma (MeSH)
IT Chemicals & Biochemicals
Ki-67: expression; p16 protein: expression; **p53**: expression; **thrombospondin-1**: expression; vascular endothelial growth factor: expression
IT Methods & Equipment
immunohistochemistry: analytical method; in situ hybridization: analytical method
IT Miscellaneous Descriptors
angiogenesis; disease prognosis; disease survival; tumor stage; Meeting Abstract
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
RN 127464-60-2 (vascular endothelial growth factor)

L14 ANSWER 12 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1998:280331 BIOSIS
DN PREV199800280331
TI **p53** and **angiogenesis** in neoplasia.
AU Gasparini, Giampietro [Reprint author]; Harris, Adrian L.
CS Dep. Oncology, St. Bortolo Hosp., 36100 Vicenze, Italy
SO Klijn, J. G. M. [Editor]. (1997) pp. 115-130. European School of Oncology Scientific Updates, Vol. 1; Prognostic and predictive value of p53. print.
Publisher: Elsevier Science Publishers B.V., PO Box 211, Sara Burgerhartstraat 25, 1000 AE Amsterdam, The Netherlands; Elsevier Science Publishing Co., Inc., P.O. Box 882, Madison Square Station, New York, New

York 10159-2101, USA.
ISBN: 0-444-82832-X.
DT Book
Book; (Book Chapter)
LA English
ED Entered STN: 8 Jul 1998
Last Updated on STN: 8 Jul 1998
CC Genetics - General 03502
Biochemistry studies - General 10060
Metabolism - General metabolism and metabolic pathways 13002
Cardiovascular system - General and methods 14501
Neoplasms - General 24002
IT Major Concepts
Cardiovascular System (Transport and Circulation); Molecular Genetics (Biochemistry and Molecular Biophysics); Tumor Biology
IT Diseases
breast cancer: neoplastic disease, reproductive system disease/female
Breast Neoplasms (MeSH)
IT Chemicals & Biochemicals
p53: inactivation, mutation, tumor suppressor gene;
thrombospondin-1
IT Miscellaneous Descriptors
angiogenesis; Book Chapter
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

L14 ANSWER 13 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1998:194893 BIOSIS
DN PREV199800194893
TI Regulation of **angiogenesis** in carcinoma of the breast, prostate, colon, and malignant **melanoma** by **p53** and **thrombospondin-1** (TSP1).
AU Fruehauf, J. P. [Reprint author]; Mehta, R.; Mechetner, E.; Kurosaki, T.; Jackowatz, J.; Grant, S.; Kyshtoobayeva, A.
CS Oncotech Inc., Irvine, CA 92614, USA
SO Proceedings of the American Association for Cancer Research Annual Meeting, (March, 1998) Vol. 39, pp. 150. print.
Meeting Info.: 89th Annual Meeting of the American Association for Cancer Research. New Orleans, Louisiana, USA. March 28-April 1, 1998. American Association for Cancer Research.
ISSN: 0197-016X.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 4 May 1998
Last Updated on STN: 4 May 1998
CC Neoplasms - Biochemistry 24006
Cardiovascular system - Physiology and biochemistry 14504
Reproductive system - Pathology 16506
General biology - Symposia, transactions and proceedings 00520
IT Major Concepts
Cardiovascular System (Transport and Circulation); Cell Biology; Tumor Biology
IT Diseases
breast carcinoma: neoplastic disease, reproductive system disease/female

Breast Neoplasms (MeSH); Carcinoma (MeSH)
IT Diseases
colon carcinoma: digestive system disease, neoplastic disease
Colonic Neoplasms (MeSH); Carcinoma (MeSH)
IT Diseases
malignant **melanoma**: neoplastic disease
Melanoma (MeSH)
IT Diseases
prostate carcinoma: neoplastic disease, reproductive system disease/male, urologic disease
Prostatic Neoplasms (MeSH); Carcinoma (MeSH)
IT Chemicals & Biochemicals
p53; **thrombospondin-1** [TSP1]
IT Miscellaneous Descriptors
angiogenesis regulation; tumor physiology; Meeting Abstract

L14 ANSWER 14 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1998:154913 BIOSIS
DN PREV199800154913
TI **Thrombospondin-1** in invasive **breast cancer** and its association with **p53** expression, micro vessel density and clinical outcome.
AU Steward, M. A. [Reprint author]; Rice, A. J.; Roberts, D.; Benson, E. A.; Horgan, K.; Quinn, C. M.
CS Dep. Surg., Gen. Infirmary at Leeds, Leeds, UK
SO Journal of Pathology, (1998) Vol. 184, No. SUPPL., pp. 5A. print.
Meeting Info.: 176th Meeting of the Pathological Society of Great Britain and Ireland. London, England, UK. January 7-9, 1998. Departments of Histopathology and Medical Microbiology, Imperial College School of Medicine at Charing Cross, London.
CODEN: JPTLAS. ISSN: 0022-3417.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 31 Mar 1998
Last Updated on STN: 31 Mar 1998
CC Pathology - General 12502
Microscopy - Histology and histochemistry 01056
Biochemistry studies - Proteins, peptides and amino acids 10064
Replication, transcription, translation 10300
Pathology - Diagnostic 12504
Metabolism - Proteins, peptides and amino acids 13012
Cardiovascular system - General and methods 14501
Reproductive system - General and methods 16501
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Neoplasms - Biochemistry 24006
Neoplasms - Carcinogens and carcinogenesis 24007
General biology - Symposia, transactions and proceedings 00520
IT Major Concepts
Reproductive System (Reproduction); Tumor Biology
IT Diseases
breast cancer: neoplastic disease, reproductive system disease/female
Breast Neoplasms (MeSH)
IT Diseases
invasive **breast cancer**: neoplastic disease, reproductive system disease/female
Breast Neoplasms (MeSH)
IT Chemicals & Biochemicals
p53: expression; **thrombospondin-1**
IT Methods & Equipment
immunohistochemistry: analytical method
IT Miscellaneous Descriptors

angiogenesis; clinical outcome; micro vessel density; tumor grades; Meeting Abstract

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: female, patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

L14 ANSWER 15 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1997:422735 BIOSIS
DN PREV199799721938
TI Control of inhibitors of **angiogenesis** by tumor suppressor genes.
AU Bouck, Noel
CS Northwest. Univ. Med. Sch., Chicago, IL, USA
SO FASEB Journal, (1997) Vol. 11, No. 9, pp. A1450.
Meeting Info.: 17th International Congress of Biochemistry and Molecular Biology in conjunction with the Annual Meeting of the American Society for Biochemistry and Molecular Biology. San Francisco, California, USA. August 24-29, 1997.
CODEN: FAJOEC. ISSN: 0892-6638.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 8 Oct 1997
Last Updated on STN: 8 Oct 1997
CC General biology - Symposia, transactions and proceedings 00520
Genetics - Animal 03506
Biochemistry studies - Proteins, peptides and amino acids 10064
Biophysics - Membrane phenomena 10508
Cardiovascular system - Blood vessel pathology 14508
Respiratory system - Pathology 16006
Endocrine - General 17002
Neoplasms - Biochemistry 24006
Neoplasms - Carcinogens and carcinogenesis 24007
IT Major Concepts
Biochemistry and Molecular Biophysics; Cardiovascular Medicine (Human Medicine, Medical Sciences); Endocrine System (Chemical Coordination and Homeostasis); Genetics; Membranes (Cell Biology); Oncology (Human Medicine, Medical Sciences); Pulmonary Medicine (Human Medicine, Medical Sciences)
IT Miscellaneous Descriptors
ANGIOGENESIS; BASIC FIBROBLAST GROWTH FACTOR; BFGF; CD36; FIBROSARCOMA; LUNG METASTASIS; **MELANOMA**; MICROVASCULAR CELL; MIGRATION; MOLECULAR GENETICS; NEOPLASTIC DISEASE; **P53**; RESPIRATORY SYSTEM DISEASE; **THROMBOSPONDIN-1**; TUMOR BIOLOGY; VASCULAR ENDOTHELIAL GROWTH FACTOR; VEGF
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse

Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

L14 ANSWER 16 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1997:249509 BIOSIS
DN PREV199799548712
TI Regulation of genes associated with **angiogenesis**, growth, and metastasis by specific **p53** point mutations in a murine **melanoma** cell line.
AU Koura, Aaryan N.; Van Golen, Kenneth; Tsan, Rachel; Radinsky, Robert; Price, Janet E.; Ellis, Lee M. [Reprint author]
CS Dep. Surg. Oncol., Box 106, Univ. Texas M.D. Anderson Cancer Cent., 1515 Holcombe Blvd., Houston, TX 77030, USA
SO Oncology Reports, (1997) Vol. 4, No. 3, pp. 475-479.
ISSN: 1021-335X.
DT Article
LA English
ED Entered STN: 13 Jun 1997
Last Updated on STN: 13 Jun 1997
AB K1735 murine **melanoma** cells transfected with **p53** cDNAs bearing specific point mutations are metastatic in nude mice, whereas the parent and control-transfected cells are nonmetastatic. To determine whether **p53** gene mutations regulate genes associated with **angiogenesis**, growth, and metastasis, we examined expression of vascular endothelial growth factor, transforming growth factor-beta, mdm-2, insulin-like growth factor I, IGF-I receptor, epidermal growth factor receptor, c-MET, and **thrombospondin 1** in K1735 cells transfected with one of four different mutant **p53** cDNAs. Northern blot analysis demonstrated differential upregulation of these genes in cells transfected with different mutant **p53** cDNAs. Up-regulation of **angiogenesis**-, growth-, and metastasis-related genes by mutant **p53** may contribute to metastasis formation.
CC Genetics - Animal 03506
Biochemistry studies - General 10060
Neoplasms - General 24002
IT Major Concepts
Biochemistry and Molecular Biophysics; Genetics; Tumor Biology
IT Chemicals & Biochemicals
INSULIN-LIKE GROWTH FACTOR I
IT Miscellaneous Descriptors
ANGIOGENESIS; C-MET; EPIDERMAL GROWTH FACTOR RECEPTOR; EXPRESSION; GENE REGULATION; GENETICS; INSULIN-LIKE GROWTH FACTOR I; INSULIN-LIKE GROWTH FACTOR I RECEPTOR; K1735 CELL LINE; MDM-2; METASTASIS; MURINE **MELANOMA** CELLS; NUDE MOUSE; **P53** DNA; **P53** POINT MUTATIONS; **THROMBOSPONDIN 1** ; TRANSFORMING GROWTH FACTOR-BETA; TUMOR BIOLOGY; TUMOR GROWTH; VASCULAR ENDOTHELIAL GROWTH FACTOR
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Muridae
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN 67763-96-6 (INSULIN-LIKE GROWTH FACTOR I)

L14 ANSWER 17 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1997:233070 BIOSIS
DN PREV199799532273

TI **P53, thrombospondin-1** (TSP-1), **angiogenesis** (ANG) and androgen receptor (AR) as prognostic factors in **prostate cancer** (PC).
AU Mehta, R. [Reprint author]; Kyshtoobayeva, A.; Kurosaki, T.; Small, E.; Stroop, R.; Fruehauf, J.
CS Oncotech Inc., Irvine, CA 92614, USA
SO Proceedings of the American Association for Cancer Research Annual Meeting, (1997) Vol. 38, No. 0, pp. 429.
Meeting Info.: Eighty-eighth Annual Meeting of the American Association for Cancer Research. San Diego, California, USA. April 12-16, 1997.
ISSN: 0197-016X.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 2 Jun 1997
Last Updated on STN: 2 Jun 1997
CC General biology - Symposia, transactions and proceedings 00520
Biophysics - Membrane phenomena 10508
Metabolism - Carbohydrates 13004
Metabolism - Proteins, peptides and amino acids 13012
Cardiovascular system - Blood vessel pathology 14508
Blood - Blood cell studies 15004
Urinary system - Pathology 15506
Reproductive system - Pathology 16506
Neoplasms - Biochemistry 24006
IT Major Concepts
Blood and Lymphatics (Transport and Circulation); Cardiovascular Medicine (Human Medicine, Medical Sciences); Membranes (Cell Biology); Metabolism; Oncology (Human Medicine, Medical Sciences); Reproductive System (Reproduction); Urology (Human Medicine, Medical Sciences)
IT Miscellaneous Descriptors
ANDROGEN RECEPTOR; **ANGIOGENESIS**; EXPRESSION; NEOPLASTIC DISEASE; PATIENT; PROGNOSTIC MARKER; **PROSTATE CANCER** ; **P53**; REPRODUCTIVE SYSTEM DISEASE/MALE; SURVIVAL; **THROMBOSPONDIN-1**; TUMOR BIOLOGY; UROLOGIC DISEASE
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

L14 ANSWER 18 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1997:231779 BIOSIS
DN PREV199799530982
TI Mutant **p53**, TSP-1, and **angiogenesis**: An index of metastatic risk in **breast cancer**.
AU Fruehauf, J. [Reprint author]; Kyshtoobayeva, A.; Yeatman, T.; Coppola, D.; Kurosaki, T.; Kim, H.
CS Oncotech Inc., Irvine, CA 92614, USA
SO Proceedings of the American Association for Cancer Research Annual Meeting, (1997) Vol. 38, No. 0, pp. 234-235.
Meeting Info.: Eighty-eighth Annual Meeting of the American Association for Cancer Research. San Diego, California, USA. April 12-16, 1997.
ISSN: 0197-016X.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 2 Jun 1997
Last Updated on STN: 2 Jun 1997
CC General biology - Symposia, transactions and proceedings 00520

Cytology - Human 02508
Genetics - Human 03508
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Proteins, peptides and amino acids 10064
Replication, transcription, translation 10300
Biophysics - Molecular properties and macromolecules 10506
Anatomy and Histology - Microscopic and ultramicroscopic anatomy 11108
Pathology - Diagnostic 12504
Metabolism - Proteins, peptides and amino acids 13012
Metabolism - Nucleic acids, purines and pyrimidines 13014
Cardiovascular system - Physiology and biochemistry 14504
Cardiovascular system - Blood vessel pathology 14508
Reproductive system - Anatomy 16502
Reproductive system - Physiology and biochemistry 16504
Reproductive system - Pathology 16506
Neoplasms - Diagnostic methods 24001
Neoplasms - Immunology 24003
Neoplasms - Biochemistry 24006
Neoplasms - Carcinogens and carcinogenesis 24007
Development and Embryology - Morphogenesis 25508
Immunology - General and methods 34502

IT Major Concepts
Biochemistry and Molecular Biophysics; Cardiovascular Medicine (Human Medicine, Medical Sciences); Cardiovascular System (Transport and Circulation); Cell Biology; Development; Genetics; Immune System (Chemical Coordination and Homeostasis); Metabolism; Molecular Genetics (Biochemistry and Molecular Biophysics); Morphology; Oncology (Human Medicine, Medical Sciences); Pathology; Reproductive System (Reproduction)

IT Miscellaneous Descriptors
ANGIOGENESIS; BLOOD VESSEL FORMATION INHIBITOR; **BREAST CANCER**; DIAGNOSTIC METHOD; EXPRESSION; FEMALE; GENETIC DISEASE; IMMUNOHISTOCHEMISTRY; IMMUNOLOGIC METHOD; MEDICAL GENETICS; METASTASIS; METASTATIC RISK; MOLECULAR BIOLOGY; MUTANT **P53**; MUTATION; NEOPLASTIC DISEASE; ONCOLOGY; PATIENT; **P53** TUMOR SUPPRESSOR GENE; REPRODUCTIVE SYSTEM DISEASE/FEMALE; SURVIVAL; **THROMBOSPONDIN-1**; TSP-1; TUMOR PROGRESSION

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

L14 ANSWER 19 OF 26 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 1996:254681 BIOSIS
DN PREV199698810810
TI Mutant **p53**, decreased **thrombospondin-1**, and **angiogenesis** may contribute to **breast cancer** progression.
AU Parker, R. J. [Reprint author]; Kyshtoobayeva, A. [Reprint author]; Grant, S.; Fruehauf, J. P. [Reprint author]
CS Oncotech Inc., Irvine, CA 92714, USA
SO Proceedings of the American Association for Cancer Research Annual Meeting, (1996) Vol. 37, No. 0, pp. 83.
Meeting Info.: 87th Annual Meeting of the American Association for Cancer Research. Washington, D.C., USA. April 20-24, 1996.
ISSN: 0197-016X.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

Conference; (Meeting Poster)
LA English
ED Entered STN: 31 May 1996
Last Updated on STN: 31 May 1996
CC General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - Proteins, peptides and amino acids 10064
Cardiovascular system - Blood vessel pathology 14508
Blood - Lymphatic tissue and reticuloendothelial system 15008
Reproductive system - Pathology 16506
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Neoplasms - Carcinogens and carcinogenesis 24007
Development and Embryology - Morphogenesis 25508
IT Major Concepts
Blood and Lymphatics (Transport and Circulation); Cardiovascular Medicine (Human Medicine, Medical Sciences); Development; Oncology (Human Medicine, Medical Sciences); Reproductive System (Reproduction)
IT Miscellaneous Descriptors
MEETING ABSTRACT; MEETING POSTER; METASTASIS; ONCOGENESIS; TUMOR GROWTH
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

L14 ANSWER 20 OF 26 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
AN 2005467811 EMBASE
TI Prognostic and predictive molecular markers in DCIS: A review.
AU Nofech-Mozes S.; Spayne J.; Rakovitch E.; Hanna W.
CS W. Hanna, Sunnybrook and Women's College Health Sciences Centre, 2075 Bayview Ave., Toronto, Ont. M4N 3M5, Canada. wedad.hanna@sw.ca
SO Advances in Anatomic Pathology, (2005) Vol. 12, No. 5, pp. 256-264.
Refs: 117
ISSN: 1072-4109
CY United States
DT Journal; General Review
FS 005 General Pathology and Pathological Anatomy
016 Cancer
029 Clinical Biochemistry
LA English
SL English
ED Entered STN: 20051110
Last Updated on STN: 20051110
AB Eighteen percent of all new **breast cancers** detected on screening mammography are ductal carcinoma in situ (DCIS), a preinvasive lesion that is highly curable. However, some women with DCIS will develop life-threatening invasive **breast cancer**. Because the determinants of invasive recurrence are unknown, all women with DCIS require the same treatment (usually with surgery and radiation). Therefore, there is a need to identify biologic markers and create a profile that will provide prognostic information that is more accurate than the currently used van Nuys Index to predict invasive recurrence. In the present review, we examined the many biologic markers studied in **breast cancer**, describe their main biologic role and their expression in DCIS, and review the various studies regarding their ability to serve as prognostic factors in **breast cancer** with an emphasis on predicting invasive recurrence in patients with DCIS. This review covers established markers, namely, ER, PR and HER2/neu, that are used routinely to make treatment decisions as well as investigative biologic factors involved in cell proliferation, cell cycle regulation, extracellular molecules, factors involved in extracellular matrix

degradation, and **angiogenesis**. However, controversies exist regarding the value of these prognostic factors, their interrelationship, and their advantages over morphologic evaluation. Copyright .COPYRGT. 2005 by Lippincott Williams & Wilkins.

CT Medical Descriptors:
*breast carcinoma: DI, diagnosis
*breast carcinoma: ET, etiology
*intraductal carcinoma: DI, diagnosis
*intraductal carcinoma: ET, etiology
*carcinoma in situ: DI, diagnosis
*carcinoma in situ: ET, etiology
breast disease: DI, diagnosis
breast disease: ET, etiology
cancer recurrence
prediction
cell cycle
mitogenesis
angiogenesis
extracellular matrix
breast carcinogenesis
prognosis
human
review
priority journal
Drug Descriptors:
*estrogen receptor: EC, endogenous compound
*progesterone receptor: EC, endogenous compound
*epidermal growth factor receptor 2: EC, endogenous compound
*mitosin: EC, endogenous compound
*biological marker: EC, endogenous compound
tumor marker: EC, endogenous compound
Ki 67 antigen: EC, endogenous compound
telomerase: EC, endogenous compound
cyclin D1: EC, endogenous compound
cyclin A: EC, endogenous compound
protein p53: EC, endogenous compound
protein bcl 2: EC, endogenous compound
protein p21: EC, endogenous compound
somatomedin binding protein related protein 1: EC, endogenous compound
cadherin: EC, endogenous compound
psoriasin: EC, endogenous compound
urokinase: EC, endogenous compound
matrix metalloproteinase: EC, endogenous compound
discoidin: EC, endogenous compound
discoidin domain receptor: EC, endogenous compound
CD31 antigen: EC, endogenous compound
CD34 antigen: EC, endogenous compound
blood clotting factor 8: EC, endogenous compound
cyclooxygenase 2: EC, endogenous compound
thrombospondin 1: EC, endogenous compound
messenger RNA
complementary DNA
unclassified drug

RN (epidermal growth factor receptor 2) 137632-09-8; (protein bcl 2) 219306-68-0; (protein p21) 85306-28-1; (urokinase) 139639-24-0; (discoidin) 81669-85-4, 81669-86-5; (blood clotting factor 8) 9001-27-8; (**thrombospondin 1**) 343987-56-4

L14 ANSWER 21 OF 26 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
AN 2005170453 EMBASE
TI Small interfering RNA for experimental cancer therapy.
AU Tong A.W.; Zhang Y.-A.; Nemunaitis J.
CS A.W. Tong, Mary Crowley Medical Research Center, 3500 Gaston Avenue,

Dallas, TX 75246, United States. alext@baylorhealth.edu
SO Current Opinion in Molecular Therapeutics, (2005) Vol. 7, No. 2, pp. 114-124.
Refs: 98
ISSN: 1464-8431 CODEN: CUOTFO
CY United Kingdom
DT Journal; General Review
FS 004 Microbiology
016 Cancer
022 Human Genetics
030 Pharmacology
037 Drug Literature Index
039 Pharmacy
LA English
SL English
ED Entered STN: 20050428
Last Updated on STN: 20050428
AB RNA interference describes the recently discovered process of sequence-specific, post-transcriptional gene silencing that is initiated by double-stranded RNA molecules known as small interfering RNAs (siRNAs). siRNAs have an acceptable half-life in vitro, a predictable biodistribution profile similar to that of single-stranded antisense oligonucleotides (ASOs), and have repeatedly been more robust than ASO techniques in terms of consistency of transcript knockdown and threshold concentration. Following validation in mammalian cells by Tuschl and co-workers in 2001, synthetic siRNAs have gained wide acceptance as a laboratory tool for target validation. Currently, there is considerable interest in the therapeutic use of siRNA, particularly in areas of infectious disease and cancer. In vitro and in vivo findings demonstrate the efficacy of siRNA knockdown of gene messages that are pivotal for tumor cell growth, metastasis, **angiogenesis** and chemoresistance, leading to tumor growth suppression. However, siRNA-based cancer therapy faces similar pharmacokinetic limitations to ASO therapy with respect to the extent that siRNA accesses primary and metastatic target cells. The recently identified 'off-target activity' of siRNAs is also of concern. The concept of carrier-restricted delivery of siRNA by conditionally replicative, oncolytic adenoviruses is discussed. Oncolytic adenoviral delivery offers the potential benefits of restricted and renewable siRNA expression within the tumor microenvironment, an additive antitumor outcome through viral oncolysis and siRNA-mediated oncogene silencing, and a proven clinical platform with respect to infectivity and safety.

CT Medical Descriptors:
RNA interference
posttranscriptional gene silencing
drug half life
drug distribution
validation process
drug efficacy
tumor growth
drug targeting
metastasis
tumor vascularization
cancer resistance
cancer inhibition
adenovirus vector
viral gene delivery system
antineoplastic activity
oncolytic virus
oncogene
drug safety
virus infectivity
treatment outcome
autoimmune hepatitis: DT, drug therapy

breast cancer: DT, drug therapy
pancreas adenocarcinoma: DT, drug therapy
drug specificity
retrovirus vector
drug potentiation
drug tolerability
solid tumor: DT, drug therapy
dose response
plasmid vector
drug design
viral gene therapy
glioma: DT, drug therapy
lentivirus vector
genetic transduction
human
nonhuman
clinical trial
review
Drug Descriptors:
*small interfering RNA: CT, clinical trial
*small interfering RNA: CB, drug combination
*small interfering RNA: CM, drug comparison
*small interfering RNA: DV, drug development
*small interfering RNA: IT, drug interaction
*small interfering RNA: DT, drug therapy
*small interfering RNA: PR, pharmaceutics
*small interfering RNA: PK, pharmacokinetics
*small interfering RNA: PD, pharmacology
*small interfering RNA: IP, intraperitoneal drug administration
*small interfering RNA: TU, intratumoral drug administration
*small interfering RNA: IV, intravenous drug administration
*small interfering RNA: VI, intravitreal drug administration
antisense oligonucleotide: CT, clinical trial
antisense oligonucleotide: CM, drug comparison
antisense oligonucleotide: DO, drug dose
antisense oligonucleotide: DT, drug therapy
antisense oligonucleotide: PK, pharmacokinetics
antisense oligonucleotide: PD, pharmacology
ribozyme: CT, clinical trial
ribozyme: CM, drug comparison
ribozyme: DT, drug therapy
ribozyme: PD, pharmacology
ribozyme: SC, subcutaneous drug administration
liposome: PR, pharmaceutics
double stranded RNA: DT, drug therapy
double stranded RNA: PR, pharmaceutics
double stranded RNA: PD, pharmacology
double stranded RNA: IP, intraperitoneal drug administration
double stranded RNA: TU, intratumoral drug administration
short hairpin RNA: DT, drug therapy
short hairpin RNA: PR, pharmaceutics
short hairpin RNA: PD, pharmacology
short hairpin RNA: TU, intratumoral drug administration
short hairpin RNA: IV, intravenous drug administration
gemcitabine: CB, drug combination
gemcitabine: IT, drug interaction
gemcitabine: DT, drug therapy
gemcitabine: PD, pharmacology
thrombospondin 1: CB, drug combination
thrombospondin 1: IT, drug interaction
thrombospondin 1: DT, drug therapy
thrombospondin 1: PD, pharmacology
sirna 027: CT, clinical trial
sirna 027: DT, drug therapy

sirna 027: VI, intravitreal drug administration
angiozyme: CT, clinical trial
angiozyme: CM, drug comparison
angiozyme: DT, drug therapy
angiozyme: PD, pharmacology
angiozyme: SC, subcutaneous drug administration
immunoliposome: PR, pharmaceutics
protein p53: DT, drug therapy
protein p53: PR, pharmaceutics
protein p53: PD, pharmacology
protein p53: TU, intratumoral drug administration
advexin: DT, drug therapy
advexin: PR, pharmaceutics
advexin: PD, pharmacology
advexin: TU, intratumoral drug administration
ONYX 015: DT, drug therapy
ONYX 015: PR, pharmaceutics
ONYX 015: PD, pharmacology
ONYX 015: IA, intraarterial drug administration
ONYX 015: TU, intratumoral drug administration
antineoplastic agent: CT, clinical trial
antineoplastic agent: CB, drug combination
antineoplastic agent: CM, drug comparison
antineoplastic agent: DV, drug development
antineoplastic agent: DO, drug dose
antineoplastic agent: IT, drug interaction
antineoplastic agent: DT, drug therapy
antineoplastic agent: PR, pharmaceutics
antineoplastic agent: PK, pharmacokinetics
antineoplastic agent: PD, pharmacology
antineoplastic agent: IA, intraarterial drug administration
antineoplastic agent: IP, intraperitoneal drug administration
CT Drug Descriptors:
antineoplastic agent: TU, intratumoral drug administration
antineoplastic agent: IV, intravenous drug administration
antineoplastic agent: VI, intravitreal drug administration
antineoplastic agent: SC, subcutaneous drug administration
onyx 411: CB, drug combination
onyx 411: IT, drug interaction
onyx 411: DT, drug therapy
onyx 411: PD, pharmacology
onyx 411: IV, intravenous drug administration
onyx 443: DT, drug therapy
onyx 443: PD, pharmacology
onyx 443: IV, intravenous drug administration
ONYX 321: PD, pharmacology
unclassified drug
RN (gemcitabine) 103882-84-4; (**thrombospondin 1**) 343987-56-4
CN (1) Sirna 027; (2) Ingn 201
CO (1) Sirna therapeutics; (2) Introgen

L14 ANSWER 22 OF 26 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
AN 2004350415 EMBASE
TI Gene-based therapy in **prostate cancer**.
AU Foley R.; Lawler M.; Hollywood D.
CS Prof. D. Hollywood, Department of Haematology/Oncology, Institute of Molecular Medicine, St. James' Hospital/Trinity College, Dublin 8, Ireland. dhlywood@tcd.ie
SO Lancet Oncology, (1 Aug 2004) Vol. 5, No. 8, pp. 469-479.
Refs: 75
ISSN: 1470-2045 CODEN: LOANBN
PUI S 1470-2045(04)01525-6

CY United States
DT Journal; General Review
FS 016 Cancer
022 Human Genetics
028 Urology and Nephrology
037 Drug Literature Index
038 Adverse Reactions Titles
039 Pharmacy
LA English
SL English
ED Entered STN: 20040902
Last Updated on STN: 20040902
AB **Prostate cancer** is one of the commonest causes of illness and death from cancer. Radical prostatectomy, radiotherapy, and hormonal therapy are the main conventional treatments. However, gene therapy is emerging as a promising adjuvant to conventional strategies, and several clinical trials are in progress. Here, we outline several approaches to gene therapy for **prostate cancer** that have been investigated. Methods of gene delivery are described, particularly those that have commonly been used in research on **prostate cancer**. We discuss efforts to achieve tissue-specific gene delivery, focusing on the use of tissue-specific gene promoters. Finally, the present use of gene therapy for **prostate cancer** is evaluated. The ability to deliver gene-therapy vectors directly to prostate tissue, and to regulate gene expression in a tissue-specific manner, offers promise for the use of gene therapy in **prostate cancer**.
CT Medical Descriptors:
*gene therapy
***prostate cancer: DT, drug therapy**
***prostate cancer: PC, prevention**
***prostate cancer: RT, radiotherapy**
***prostate cancer: SU, surgery**
morbidity
cause of death
cancer mortality
prostatectomy
cancer radiotherapy
cancer hormone therapy
cancer adjuvant therapy
viral gene delivery system
nonviral gene delivery system
cancer research
tissue specificity
gene expression regulation
drug mechanism
suicide gene therapy
promoter region
cancer immunotherapy
thrombocytopenia: SI, side effect
lymphocytopenia: SI, side effect
human
nonhuman
clinical trial
review
priority journal
Drug Descriptors:
*antineoplastic agent: AE, adverse drug reaction
*antineoplastic agent: CT, clinical trial
*antineoplastic agent: CB, drug combination
*antineoplastic agent: DT, drug therapy
*antineoplastic agent: PR, pharmaceutics
*antineoplastic agent: PD, pharmacology
*antineoplastic agent: DL, intradermal drug administration

*antineoplastic agent: IM, intramuscular drug administration
*antineoplastic agent: IV, intravenous drug administration
*antineoplastic agent: SC, subcutaneous drug administration
antisense oligonucleotide: CT, clinical trial
antisense oligonucleotide: DT, drug therapy
antisense oligonucleotide: TO, drug toxicity
antisense oligonucleotide: PR, pharmaceutics
antisense oligonucleotide: PD, pharmacology
antisense oligonucleotide: IV, intravenous drug administration
oligonucleotide: PD, pharmacology
small interfering RNA: PD, pharmacology
double stranded DNA: PD, pharmacology
thymidine kinase: AE, adverse drug reaction
thymidine kinase: CT, clinical trial
thymidine kinase: CB, drug combination
thymidine kinase: DT, drug therapy
thymidine kinase: PR, pharmaceutics
thymidine kinase: PD, pharmacology
ganciclovir: CT, clinical trial
ganciclovir: CB, drug combination
ganciclovir: DT, drug therapy
ganciclovir: PR, pharmaceutics
ganciclovir: PD, pharmacology
tumor suppressor protein: AE, adverse drug reaction
tumor suppressor protein: CT, clinical trial
tumor suppressor protein: DT, drug therapy
tumor suppressor protein: PR, pharmaceutics
tumor suppressor protein: PD, pharmacology
tumor suppressor protein: TU, intratumoral drug administration
protein p53: DT, drug therapy
protein p53: PR, pharmaceutics
protein p53: PD, pharmacology
protein Bax: PR, pharmaceutics
protein Bax: PD, pharmacology
angiogenesis inhibitor: DT, drug therapy
angiogenesis inhibitor: PR, pharmaceutics
angiogenesis inhibitor: PD, pharmacology
thrombospondin 1: DT, drug therapy
thrombospondin 1: PR, pharmaceutics
thrombospondin 1: PD, pharmacology
cytokine: DT, drug therapy
cytokine: PR, pharmaceutics
cytokine: PD, pharmacology
interleukin 2: AE, adverse drug reaction
interleukin 2: CT, clinical trial
interleukin 2: DT, drug therapy
interleukin 2: PR, pharmaceutics
interleukin 2: PD, pharmacology
interleukin 2: TU, intratumoral drug administration
tumor antigen: DT, drug therapy
tumor antigen: PR, pharmaceutics
tumor antigen: PD, pharmacology
tumor antigen: DL, intradermal drug administration
tumor antigen: IM, intramuscular drug administration
tumor antigen: SC, subcutaneous drug administration
prostate specific antigen: AE, adverse drug reaction
prostate specific antigen: CT, clinical trial
prostate specific antigen: DT, drug therapy
prostate specific antigen: PR, pharmaceutics
prostate specific antigen: PD, pharmacology
prostate specific antigen: DL, intradermal drug administration
prostate specific antigen: IM, intramuscular drug administration
prostate specific antigen: SC, subcutaneous drug administration
cytosine deaminase: AE, adverse drug reaction

cytosine deaminase: CT, clinical trial
cytosine deaminase: CB, drug combination
cytosine deaminase: DT, drug therapy
cytosine deaminase: PR, pharmaceutics
cytosine deaminase: PD, pharmacology
flucytosine: CB, drug combination
flucytosine: PR, pharmaceutics
flucytosine: PD, pharmacology
valaciclovir: CT, clinical trial
valaciclovir: CB, drug combination
valaciclovir: DT, drug therapy
valaciclovir: PR, pharmaceutics
valaciclovir: PD, pharmacology
caspase 9: PR, pharmaceutics
caspase 9: PD, pharmacology
diphtheria toxin: DT, drug therapy
diphtheria toxin: EC, endogenous compound

CT Drug Descriptors:
diphtheria toxin: PR, pharmaceutics
diphtheria toxin: PD, pharmacology
granulocyte macrophage colony stimulating factor: CT, clinical trial
granulocyte macrophage colony stimulating factor: DT, drug therapy
granulocyte macrophage colony stimulating factor: PR, pharmaceutics
granulocyte macrophage colony stimulating factor: PD, pharmacology
granulocyte macrophage colony stimulating factor: DL, intradermal drug administration
transforming growth factor beta receptor: DT, drug therapy
transforming growth factor beta receptor: PD, pharmacology
mutant protein: DT, drug therapy
mutant protein: PD, pharmacology
docetaxel: DT, drug therapy
docetaxel: TO, drug toxicity
probasin: DT, drug therapy
protein bcl 2: DT, drug therapy
kallikrein: DT, drug therapy
gamma glutamyl hydrolase: DT, drug therapy
unindexed drug

RN (thymidine kinase) 9002-06-6, 9086-73-1; (ganciclovir) 82410-32-0; (**thrombospondin** 1) 343987-56-4; (interleukin 2) 85898-30-2; (cytosine deaminase) 9025-05-2; (flucytosine) 2022-85-7; (valaciclovir) 124832-26-4; (caspase 9) 180189-96-2; (docetaxel) 114977-28-5; (protein bcl 2) 219306-68-0; (kallikrein) 8006-48-2, 9001-01-8; (gamma glutamyl hydrolase) 55326-32-4, 9074-87-7

L14 ANSWER 23 OF 26 EMBASE

AN 2001374392 EMBASE

TI Review: Molecular pathology of cyclooxygenase-2 in cancer-induced **angiogenesis**.

AU Fosslien E.

CS Dr. E. Fosslien, Department of Pathology (M/C 847), College of Medicine, University of Illinois at Chicago, 1819 West Polk Street, Chicago, IL 60612, United States. efosslie@uic.edu

SO Annals of Clinical and Laboratory Science, (2001) Vol. 31, No. 4, pp. 325-348.
Refs: 169
ISSN: 0091-7370 CODEN: ACLSCP

CY United States

DT Journal; General Review

FS 005 General Pathology and Pathological Anatomy
016 Cancer
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index

LA English
SL English
ED Entered STN: 20011108
Last Updated on STN: 20011108
AB Cancer-induced **angiogenesis** is the result of increased expression of angiogenic factors, or decreased expression of anti-angiogenic factors, or a combination of both events. For instance, in colon cancer, the malignant cells, the stromal fibroblasts, and the endothelial cells all exhibit strong staining for cyclooxygenase-2 (COX-2), the rate-controlling enzyme in prostaglandin (PG) synthesis. In various cancer tissues, vascular endothelial growth factor (VEGF) and transforming growth factor β (TGF- β) co-localize with COX-2. Strong COX-2 and VEGF expression is highly correlated with increased tumor microvascular density (MCD); new vessels proliferate in areas of the tumor that express COX-2. Moreover, high MVD is a predictor of poor prognosis in breast and cervical cancers. COX-2 and VEGF expression are elevated in breast and **prostate cancer** tissues and their cell-lines. In vitro, PGE2 induces VEGF. Supernatants of cultured cells from breast, prostate, and squamous cell cancers contain angiogenic proteins such as COX-2 and VEGF that induce in vitro **angiogenesis** . A selective COX-2 inhibitor, NS-398, restores tumor cell apoptosis, reduces microvascular density, and reduces tumor growth of PC-3 prostate carcinoma cells xenografted into nude mice. The COX-2 produced by a malignant tumor and COX-2 produced by the surrounding host tissue both contribute to new vessel formation, which explains how selective COX-2 inhibition reduces tumor growth where the tumor COX-2 gene has been silenced by methylation.
CT Medical Descriptors:
***angiogenesis**
*tumor vascularization
molecular biology
microvascularization
stroma cell
fibroblast
endothelium cell
prostaglandin synthesis
colon cancer: ET, etiology
breast cancer: ET, etiology
prostate cancer: ET, etiology
uterine cervix cancer: ET, etiology
squamous cell carcinoma: ET, etiology
in vitro study
apoptosis
cancer inhibition
carcinogenesis
antineoplastic activity
human
nonhuman
review
priority journal
Drug Descriptors:
*cyclooxygenase 2: EC, endogenous compound
vasculotropin: EC, endogenous compound
transforming growth factor beta: EC, endogenous compound
n (2 cyclohexyloxy 4 nitrophenyl)methanesulfonamide: PD, pharmacology
celecoxib: PD, pharmacology
rofecoxib: PD, pharmacology
nonsteroid antiinflammatory agent: PD, pharmacology
protein p53: EC, endogenous compound
prostaglandin E2: EC, endogenous compound
nitric oxide synthase: EC, endogenous compound
endoglin: EC, endogenous compound
4 (4 cyclohexyl 2 methyl 5 oxazolyl) 2 fluorobenzenesulfonamide: PD, pharmacology

haptoglobin: EC, endogenous compound
thrombospondin 1: EC, endogenous compound
angiostatin: EC, endogenous compound
metalloproteinase inhibitor: EC, endogenous compound
CD31 antigen: EC, endogenous compound

RN (vasculotropin) 127464-60-2; (n (2 cyclohexyloxy 4 nitrophenyl)methanesulfonamide) 123653-11-2; (celecoxib) 169590-42-5; (rofecoxib) 162011-90-7, 186912-82-3; (prostaglandin E2) 363-24-6; (nitric oxide synthase) 125978-95-2; (4 (4 cyclohexyl 2 methyl 5 oxazolyl) 2 fluorobenzenesulfonamide) 180200-68-4; (haptoglobin) 9087-69-8; (angiostatin) 172642-30-7, 86090-08-6

CN Ns 398; Jte 522

L14 ANSWER 24 OF 26 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN

AN 2001087714 EMBASE

TI Expression of **thrombospondin**-1 in pancreatic carcinoma: Correlation with microvessel density.

AU Kasper H.U.; Ebert M.; Malfertheiner P.; Roessner A.; Kirkpatrick C.J.; Wolf H.K.

CS H.U. Kasper, Department of Pathology, Otto-von-Guericke University, Leipziger Strasse 44, 39112 Magdeburg, Germany. hukasper@hotmail.com

SO Virchows Archiv, (2001) Vol. 438, No. 2, pp. 116-120.
Refs: 38
ISSN: 0945-6317 CODEN: VARCEM

CY Germany

DT Journal; Article

FS 016 Cancer
048 Gastroenterology

LA English

SL English

ED Entered STN: 20010406
Last Updated on STN: 20010406

AB **Thrombospondin-1** (TSP-1) is a multifunctional platelet and extracellular matrix protein that is involved in **angiogenesis**. Under certain pathological conditions, e.g., malignant tumors, high concentrations of TSP-1 work as an angiogenic agonist. Here we examined 98 pancreatic carcinomas with respect to TSP-1 immunoreactivity and its correlation to intratumoral microvessel density (MVD), a representation of the overall degree of **angiogenesis** in carcinomas. Northern blot analysis for TSP-1 mRNA was performed in seven additional cases. Eighty-seven tumors showed strong TSP-1 immunoreactivity, nine carcinomas were only weakly positive, and two lesions were negative for TSP-1. TSP-1 immunoreactivity was detected in the extracellular matrix, mostly at the invasion front of the tumor. Using Northern blot analysis, we observed high levels of TSP-1 mRNA in three out of seven pancreatic carcinomas. The mean MVD in pancreatic carcinoma was 38.8 vessels per mm2. Tumors with a high expression of TSP-1 showed a higher MVD and the correlation between TSP-1 immunoreactivity and microvessel density was highly significant (P=0.003). As a modulator of **angiogenesis**, TSP-1 is strongly expressed in most pancreatic adenocarcinomas and is likely to contribute to the extensive neovascularization and spread of this highly aggressive tumor.

CT Medical Descriptors:
*pancreas cancer: DI, diagnosis
***angiogenesis**
*gene expression
Northern blotting
immunoreactivity
extracellular matrix
neovascularization (pathology)
thrombocyte
prognosis
endometrium cancer: DI, diagnosis

breast cancer: DI, diagnosis
ovary cancer: DI, diagnosis
colon cancer: DI, diagnosis
lung adenocarcinoma: DI, diagnosis
tumor suppressor gene
human
major clinical study
human tissue
human cell
article
priority journal
Drug Descriptors:
***thrombospondin 1**
messenger RNA
disulfide
protein p53
protein p16
RN (disulfide) 16734-12-6

L14 ANSWER 25 OF 26 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN
AN 1998333116 EMBASE
TI Gene therapy with **P53** and a fragment of thrombospondin I inhibits human **breast cancer** in vivo.
AU Xu M.; Kumar D.; Stass S.A.; Mixson A.J.
CS A.J. Mixson, Department of Pathology, University of Maryland, Building MSTF, 10 S. Pine Street, Baltimore, MD 21201, United States
SO Molecular Genetics and Metabolism, (1998) Vol. 63, No. 2, pp. 103-109. Refs: 24
ISSN: 1096-7192 CODEN: MGMEFF
CY United States
DT Journal; Article
FS 016 Cancer
022 Human Genetics
030 Pharmacology
037 Drug Literature Index
LA English
SL English
ED Entered STN: 19981028
Last Updated on STN: 19981028
AB We recently reported that a **p53** encoding plasmid (BAP-**p53**) complexed to liposomes administered intravenously markedly attenuates the growth of a malignant human breast tumor. We now have found that systemically delivered liposomes complexed to a plasmid expressing an established antiangiogenic peptide of thrombospondin I (BAP-TSPf) decreased the growth of MDA-MB-435 tumors compared to controls in nude mice. Compared to BAP-**p53**, the BAP-TSPf group had a similar antitumor efficacy. More importantly, liposomes complexed with BAP-TSPf and BAP-**p53** synergistically decreased the growth of MDA-MB-435 tumors when compared to either BAP-**p53** or BAP-TSPf alone. Furthermore, we also determined that the combination therapy of **p53** and TSPf inhibited endothelial cells in vitro more than either **p53** or TSPf alone. There was also a significant decrease of the blood vessel density in the combination **p53** and TSPf treatment group compared to the control groups. These results suggest that liposomes complexed to a tumor suppressor and antiangiogenic genes may be effective in treating metastatic tumors.
CT Medical Descriptors:
*gene therapy
***breast cancer: TH, therapy**
plasmid
antineoplastic activity
tumor growth
angiogenesis

endothelium cell
tumor suppressor gene
metastasis
nonhuman
mouse
animal model
controlled study
animal tissue
article
priority journal
Drug Descriptors:
*liposome: PD, pharmacology
***protein p53: PD, pharmacology**
***thrombospondin 1: PD, pharmacology**

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DN 1997352894
TI Evidence of a dominant transcriptional pathway which regulates an undifferentiated and complete metastatic phenotype.
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AB The highly metastatic amelanotic C8161 human **melanoma** line was found to exhibit complete dominance of its undifferentiated and metastatic phenotype in multiple somatic cell hybridization studies designed to bypass the presence of potential tumor suppressor genes. In a three armed approach involving somatic cell fusions of C8161 with recipient lines of greater differentiation, different lineage, and different tumorigenicity status, the metastatic and undifferentiated phenotype of C8161 was promiscuously dominant. In somatic cell hybrids produced between the C8161 and a group of non-metastatic human **melanoma** lines which exhibited melanocyte differentiation markers including S100, HMB-45, NKI/C3, aC3, and melanin, the fusions were uniformly metastatic and undifferentiated. In somatic cell hybrids of C8161 and MCF-7 the fusions exhibited an estrogen independent and unresponsive, estrogen receptor (ER) negative, and highly metastatic phenotype. In fusions between C8161 and HMS-1, an immortalized 'benign' human myoepithelial line which produced an abundant extracellular matrix (ECM) and high levels of protease and angiogenic inhibitors including maspin, tissue inhibitor of metalloproteinase-1 (TIMP-1), α1-antitrypsin (α1-AT), protease nexin II (PN-II), **thrombospondin-1** and soluble basic fibroblast growth factor (bFGF) receptors, the hybrids showed complete absence of matrix, absent maspin expression, markedly decreased protease inhibitor and angiogenic inhibitor production, high levels of proteases and angiogenic factors, and a highly metastatic phenotype. In our somatic cell fusions, the human-human hybrids represented true and complete fusions and not hybrid clones selected for by loss of dominant-acting growth suppressor genes. This finding was supported by detailed

comparative genomic hybridization (CGH) studies, Q-banding karyotype analysis, and autofusions of representative clones. The purposeful creation of inherently unstable human-murine fusions between C8161 and B16-F1 where loss of putative suppressor loci would be expected, resulted in fusions exhibiting decreased growth and non-metastatic behavior with progressive chromosomal loss. Neither **p53**, nm23, DNA methyltransferase, activated ras, fibroblast growth factor-4 (FGF-4), or epidermal growth factor receptor (EGFR) mediated the acquisition of the metastatic or undifferentiated phenotype within the C8161-human fusions. These studies are the first studies ever to successfully transfer the complete metastatic phenotype by somatic cell fusion and support the presence of a new high level regulatory pathway(s) involving dominant trans-acting factors which act pleiotropically to regulate an undifferentiated and highly metastatic phenotype.

CT Medical Descriptors:
*metastasis
*transcription regulation
animal cell
article
cell clone
cell differentiation
chromosome loss
controlled study
extracellular matrix
gene locus
genetic transcription
human
human cell
hybrid cell
karyotyping
melanocyte
melanoma
mouse
nonhuman
phenotype
priority journal
somatic cell
tumor suppressor gene
Drug Descriptors:
alpha 1 antitrypsin
angiogenesis inhibitor
basic fibroblast growth factor
dna methyltransferase: EC, endogenous compound
epidermal growth factor receptor: EC, endogenous compound
estrogen
estrogen receptor
fibroblast growth factor 4: EC, endogenous compound
fibroblast growth factor receptor
protease nexin
protein p53: EC, endogenous compound
proteinase inhibitor
ras protein: EC, endogenous compound
thrombospondin
tissue inhibitor of metalloproteinase
trans acting factor: EC, endogenous compound

RN (alpha 1 antitrypsin) 9041-92-3; (basic fibroblast growth factor) 106096-93-9; (dna methyltransferase) 9037-42-7; (proteinase inhibitor) 37205-61-1; (tissue inhibitor of metalloproteinase) 97837-28-0